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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :  H04M 3/00		A1	(11) International Publication Number:  WO 99/55066
(21) International Application Number:		PCT/US99/08102	(43) International Publication Date: 28 October 1999 (28.10.99)
(22) International Filing Date:		14 April 1999 (14.04.99)	
(30) Priority Data: 09/062,041		17 April 1998 (17.04.98)	US
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			(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
			<b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

(54) Title: TELEPHONE CALL MANAGEMENT SOFTWARE AND INTERNET MARKETING METHOD

**(57) Abstract**

A telephone call management computer program that provides both call management features and long distance savings for telephone consumers and marketing and advertising services for sponsor companies that wish to advertise to the consumer is disclosed. The call management program is initially stored on a host computer (12) and is then downloaded upon request to user computers (22) along with advertisement banners selected by the sponsor companies. When used, the program automatically front-loads a long distance carrier's PIC code in front of all long distance calls made from the user computers to permit consumers to automatically make long distance phone calls at discounted rates without memorizing numerous PIC codes and without continually shopping for the best long distance rate. The program also provides many enhanced telephone calling options and displays the banners and other advertising directly on the user computers (22) while the consumers use the program.

TELEPHONE CALL MANAGEMENT SOFTWARE AND  
INTERNET MARKETING METHOD

5

## BACKGROUND OF THE INVENTION

### 1. FIELD OF THE INVENTION

The present invention relates to telephone call management devices and Internet marketing methods. More particularly, the present invention relates to a telephone call management computer program that provides call management services and discounted long distance rates for consumers and marketing and advertising services for sponsor companies that wish to advertise their products and services to users of the program.

15

### 2. DESCRIPTION OF THE PRIOR ART

Long distance telephone service consumers typically select a single, primary long distance carrier such as AT&T, MCI, or Sprint for all of their long distance calls even though less expensive rates are available from these very same carriers and other lesser known carriers. Consumers may bypass their primary long distance carriers by dialing the PIC code of another carrier in front of the normal telephone number, but most consumers either don't know about this option, can't remember the PIC codes for any of the different long distance carriers, or don't have the time and expertise to continually shop for the most competitive long distance rates. A similar problem is expected to arise in the future if de-regulation of the local telephone service industry allows consumers to select their local access providers.

Many telephone consumers also purchase expensive telephone options such as call-waiting, caller ID, speed dial, call forwarding, call blocker, anonymous call rejection, and auto redial, from their telephone service providers and are often required to purchase equipment such as caller ID boxes to use with these services. These additional services cost the telephone companies very little to provide; however, consumers often pay steep monthly fees for the services. Despite the high costs, these enhanced services do not provide database management capabilities such as allowing consumers to create easily edited personal phone books and extensive listings of incoming calls.

In a related industry, the ever-increasing popularity and use of the Internet has created tremendous marketing potential for companies wishing to advertise and sell their products and services on the world wide web. Indeed, hundreds of thousands of websites have already been created in efforts to reach consumers, and tens of 5 thousands more are being created weekly. However, this tremendous growth and use of the Internet has cluttered it and made it increasingly difficult for users to locate desired websites and for companies to attract consumers to their sites.

#### OBJECTS AND SUMMARY OF THE INVENTION

10 The present invention solves the above-described problems by providing a unique call management software program that combines the technologies of telecommunications, personal computing, and the Internet to provide both call management features and long distance savings to consumers and marketing and advertising services to sponsor companies that wish to advertise their products and 15 services to users of the program. That is to say, the call management program and Internet marketing method of the present invention (1) permits consumers to automatically make long distance phone calls at discounted rates without memorizing numerous PIC codes or continually shopping for the best long distance rates, (2) provides the consumers, free of charge, many of the same enhanced telephone calling 20 options that they previously had to pay for as well as additional, more powerful calling options, and (3) provides sponsor companies with a dramatically more effective way to place messages and advertisements in front of the consumers as they use the program.

#### BRIEF DESCRIPTION OF THE DRAWING FIGURES

25 A preferred embodiment of the present invention is described in detail below with reference to the attached drawing figures, wherein:

Fig. 1 is a schematic diagram of a typical computer and telecommunications network that may be used to implement the present invention;

Fig. 2 is a flow diagram illustrating the primary steps performed by the 30 operator of the host computer to initially set up the method of the present invention;

Fig. 3 is a flow diagram illustrating the primary steps of the registration and setup of the call management program of the present invention;

Fig. 4 is a flow diagram illustrating the primary steps performed when a user places a telephone call using the call management program of the present invention;

Fig. 5 is a flow diagram illustrating the primary steps performed when a user accesses the Internet using the call management program of the present invention; and

Fig. 6 is a flow diagram illustrating the primary steps of the calendar features of the call management program of the present invention.

#### 10 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Fig. 1, the present invention is preferably implemented with a computer network 10 including a host computer 12, at least one billing computer 14 operated by a long distance carrier, a plurality of Internet website server computers 16,18 and/or telephones 20 operated by sponsor companies wishing to advertise and sell their products and services to consumers, and a plurality of user computers 22 (only one shown) that may be used to access the host computer, the long distance carrier computer, and the sponsor companies' computers and phones. The computers are all linked by a communications network 26 that handles Internet traffic.

The host computer 12, billing computer 14, and website server computer 16,18 may be any conventional microcomputers, minicomputers, or mainframe computers such as those manufactured by IBM, Sun, or Digital Equipment Corporation. Each of these computers includes memory, input and output ports, and a network connection and is programmed with conventional www server operating software for receiving, storing, retrieving, and transmitting data over the Internet as well as software described below for implementing the steps of the present invention.

The user computers 22, which are preferably personal computers such as IBM compatible microcomputers having Intel Pentium or equivalent-type microprocessors, each include a modem, memory, input and output ports, and a network connection and are also programmed with conventional www server operating software for receiving, storing, retrieving, and transmitting data over the Internet. Each user computer is preferably operated by Microsoft Windows 95 or equivalent operating software, is configured to have access to an Internet search engine such as Yahoo, and

includes a web browser program such as Netscape Navigator or Microsoft Windows Explorer and software for implementing the steps of the present invention as described below.

At least one telephone 24 is connected to the phone port of the modem of  
5 each of the user computers 22, and the modems are in turn connected to the Internet as illustrated. Additional phones and devices having microprocessors may also be used with the present invention as described below.

The communications network 26 is a conventional telecommunications network that carries Internet traffic and that includes a plurality of switches 28 and local  
10 exchange carriers 30. The network may also be a local area network, wide area network, wireless network, voice network, or any other conventional communication network capable of providing communication between the various computers illustrated in Fig. 1.

The call management program of the present invention is designed to be  
15 stored on the host computer 12 and then downloaded to the user computers 22 as described in more detail below. The program may be written in any conventional language that is compatible with Windows operating software; however, it is preferably a modified version of a commercially available call management program such as Intellect sold by the Clearwave Company of Ft. Collins, Colorado.

20 The call management program is configured to operate with the operating system of the user computers 22 to provide many of the calling options provided by telephone service providers along with additional, more powerful database management features. In more detail, when combined with a standard caller ID service, the call management program of the present invention provides: (1) visual and audible signals  
25 of incoming calls; (2) personalized rings that may be selected for different incoming calls; (3) re-dialing of the last dialed number; (4) storing of all incoming phone numbers for later call back; (5) the entry and display of 40 or more speed-dial numbers; (6) blocking of selected incoming calls; (7) the creation of personal phone books of hundreds of numbers; and (8) the addition of incoming phone numbers to the personal  
30 phone books.

In accordance with the present invention, the call management program also "front-loads" a PIC code of a particular, pre-selected long distance carrier or a

similar code for a pre-selected local access provider in front of all numbers that are dialed using the program's speed dial or phone list functions. To this end, the five or six digit PIC code of a selected long distance carrier or local access provider is stored in memory of the host computer 12 so that it can be downloaded to the user computers 22  
5 and accessed by the call management program. The program "front-loads" the PIC code whenever a user makes a long distance call or front-loads a similar code for a local access provider whenever a user makes a local call from the personal phone list or speed dial list of one of the user computers. The program then transparently connects the call via the long distance carrier or local access provider associated with the PIC  
10 code, i.e., without requiring the user to remember and/or enter the PIC code. The PIC is preferably stored in a separate file in the host computer 12 and the user computers 22 that can be changed easily so that the operator of the host computer can periodically contract with different long distance carriers as described in more detail below.

The program also includes a calendar function that permits users to enter  
15 the dates of personal events and holidays such as birthdays, anniversaries, national holidays, appointments, etc. The program monitors the clock and calendar of the computer 22 and then displays reminders of the entered dates before the actual dates of the events. The program preferably continuously compares the dates entered for the events in the calendar to the computer's clock and calendar and then displays daily  
20 reminders of the events beginning approximately two weeks before each event. The program allows users to disable the reminders at anytime.

In accordance with the present invention and as described in more detail below, companies wishing to advertise to users of the call management program may sponsor the program by paying to have banners and other advertising downloaded to  
25 the user computers 22 along with the call management program. This enables the operator of the host computer 12 to provide the call management program to consumers free of charge. The sponsor companies may also select sound files such as .wav files selected from Windows 95 to accompany the opening and closing of their banners.

The sponsor companies also select dates, key words, URL addresses, and  
30 other triggering events and entries that will be used to trigger the display of their banners on the user computers 22. Once downloaded and installed on the user computers 22, the call management program displays the banners and other advertising only after

certain consumer activities. For example, a sponsor company that sells balloons or flowers may elect to have its banners pop up directly on the user computers along with the reminder for birthdays, anniversaries, etc., provided by the calendar function described above. This ensures that the banners are popped-up at the exact moment

5 when consumers are reminded of their personal events and therefore considering purchasing items.

The program may also monitor the entry of keywords into search engines and the entry of URL addresses into the browsers of the user computers 22 and then compare these entered keywords and URL addresses to the keywords and URL

10 addresses selected by the sponsor companies. When a match is found, the program displays the corresponding banners. This displays the banners directly on the user computers before the users connect to the Internet or complete a phone call.

Alongside the banners, the program also preferably displays a dial-through button that allows users to automatically call the sponsor company associated with the

15 banner and a click-through button that allows users to automatically connect with the company's website. If a user clicks one of these buttons or otherwise selects to be connected to the sponsor company, the program automatically connects the user via the selected connection option so that the users can immediately contact the sponsor companies at the exact moment that they are considering making a purchase.

20 Alternately, the host computer 12 may act as a proxy server so that when the users attempt to visit a sponsor company's website or call a sponsor company the communication is first routed through the host computer and then connected to the sponsor company. This permits the user computers 22 to automatically transmit tracking information described below directly to the host computer 12 each time consumers

25 access a sponsor company's website or make a phone call to a sponsor company from one of the user computers.

To permit the operator of the host computer 12 to bill the sponsor companies for referrals, the call management program also either maintains a consumer database that tracks and records each time a user contacts one of the sponsor

30 companies through the dial-through or click-through connection options or automatically transmits the information to the host computer each time a user contacts one of the sponsor companies. This allows the operator of the host computer to match the

connections to the sponsors' on-line and telephone orders so that the operator can bill the sponsor companies based on the number of times that consumers contact the sponsor companies through the call management program. The program also tracks and records the exact identity of the users.

5       The information in the consumer database may also be used to provide the operator with valuable marketing information. To this end, the program monitors the types of sites accessed and the frequency of telephone calls and Internet connections to create a marketing profile for each of the users. The information in the consumer database is periodically uploaded from the user computers 22 to the host computer 12  
10      and distributed to the sponsor companies as described in more detail below. Alternately, the user computers 22 may automatically transmit this type of information directly to the host computer 12 each time consumers access a sponsor company's website or make a phone call to a sponsor company from one of the user computers.

To allow sponsors to periodically update their banners and to allow the  
15     operator of the host computer to periodically provide different PIC codes, the call management program is provided with an expiration feature that requires the users to re-register the program at pre-selected intervals. The program preferably expires approximately every month.

The implementation of the method of the present invention is best  
20     understood with reference to the flow diagrams in Figs. 2-6. As illustrated in step 200 of Fig. 2, the operator of the host computer 12 first contracts with one or more long distance carriers that are willing to provide a block of discounted long distance calling time. The operator then enters the PIC code(s) of these long distance carriers into a file  
25     on the host computer that can be read by or imported into the call management program. The operator also contracts with various sponsor companies that wish to display banners and other advertising on the user computers as depicted in step 202. The call management program and the banners are then loaded into the host computer as depicted in step 204.

Consumers are then encouraged through conventional advertising and  
30     other means to access the host computer 12 and download the call management program as depicted in 300 of Fig. 3. A large number of consumers are expected to access the host computer to receive the call management program because the

program is free and provides many desirable telephone options that consumers previously had to pay for (along with additional, more powerful options). Use of the computer program to make long distance calls will also reduce the consumers' phone bills because of the discounted long distance rates made available by the front loaded

5 PIC codes.

Once a consumer has connected to the host computer 12, the computer displays introductory messages and instructions and prompts the entry of registration information as depicted in steps 302 and 304. The requested registration information includes information that is used to check the credit of the user and may also include  
10 profile information such as the sex, marital status, and income level of the consumer and other demographic information that may be useful to the sponsor companies.

During registration, consumers are also asked to consent to viewing advertising from the sponsor companies during their use of the call management program.

15 The host computer 12 then connects to the billing computers 14 of the long distance carrier to obtain credit approval for the consumer as depicted in steps 306 and 308. If the consumer's credit is approved with the long distance carrier, the host computer registers the consumer's phone number with the carrier as depicted in step 310 so that the consumer will receive the discounted long distance rates and so that the  
20 operator will receive credit for the consumer's use of the long distance carrier. Once a consumer has been registered, the call management software and the sponsors' banners are downloaded to the consumer as depicted in steps 312 and 314.

If the consumer contacted the host site to re-register or re-download the computer program, step 316 uploads the consumer database described above from the  
25 user computer to the host computer. Alternately, the host computer 12 may act as a proxy server as described above so that the user computers 22 automatically transmit the consumer database information directly to the host computer 12 each time consumers access a sponsor company's website or make a phone call to a sponsor company from one of the user computers.

30 Finally, the consumer is prompted to set up the call management program and to create his or her speed dial lists, phone books, calendars, etc., as depicted in step 318.

Fig. 4 illustrates the primary steps performed by the call management program when a consumer makes a phone call from a user computer 22. The consumer first selects a phone number from his or her dialer, speed-dial list or personal phone book as depicted in step 400. In step 402, the program determines whether the selected 5 phone number is a long distance toll call. If it is not, the program connects the local or toll-free long distance call as depicted in step 404 and then loops to step 412. If the call is a long distance toll call, step 406 displays a notification to the consumer that the call will not be placed through the consumer's regular long distance carrier. The consumer may disable this notification after it is first displayed so that subsequent phone calls do 10 not trigger the notification.

The program also allows the consumer to change his or her primary long distance carrier to the carrier associated with the pre-selected PIC code as depicted in step 408. If the user elects to change long distance carriers, the program sends an e-mail notice to the host computer 12 to effect the change.

15 The program may also provide instructions to the consumer on how to use the PIC code with other phones not connected to the computer 22. The present invention may also be used to load the PIC code in any type of microprocessor-based device such as a "smart phone".

The program next front-loads the pre-selected PIC code in front of the 20 selected long distance toll call or the code for pre-selected local access provider in front of the selected local call and connects the call as depicted in step 410. While the calls in steps 404 and 410 are being connected, the program may also select and display banners and connection options. If the consumer clicks on one of the connection options before the call has been completed, the program can be configured to 25 disconnect the call and instead connect the consumer to the sponsor company via the selected connection option.

After the calls and/or Internet connections have been completed, step 414 captures and stores the connection information in the consumer database or automatically transmits this type of information directly to the host computer 12. If the 30 program is near its expiration date, step 416 prompts the consumer to re-register the software as described above.

Fig. 5 illustrates the primary steps performed by the call management program when a consumer uses his or her Internet browser and/or search engine. The program monitors the keywords and URL addresses entered by the consumer and compares them to the keywords and URL addresses selected by the sponsor companies  
5 in steps in 500 and 502. If a match is found, the program selects and displays the banner or banners that correspond to the entered keywords and/or URL addresses along with connection options as illustrated in steps 504 and 506. If the consumer clicks on one of the connection options, the program connects the consumer to the sponsor company as illustrated in step 508.

10 After the calls and/or Internet connections have been completed, steps 510 and 512 capture and store the connection information in the consumer database or automatically transmits this type of information to the host computer 12 and prompt the consumer to re-register the software as described above.

15 Fig. 6 illustrates the primary steps performed by the calendar feature of the call management program. The program periodically compares the dates of the events entered into the calendar to the computer's clock and date and displays reminders of the events as illustrated in steps 600 and 602. The program also selects banners that relate to the events and displays the banners and connection options alongside the reminders as illustrated in step 604. If the consumer clicks on one of the connection options, the  
20 program connects the consumer to the sponsor company as illustrated in step 606.

After the calls and/or Internet connections have been completed, steps 608 and 610 capture and store the connection information in the consumer database or automatically transmits this information to the host computer 12 and prompt the consumer to re-register the software as described above.

25 From the foregoing, it should be apparent that the present invention provides a unique call management software program that combines the technologies of telecommunications, personal computing, and the Internet to provide both call management features and long distance savings to telephone consumers and marketing and advertising services to sponsors of the program. Specifically, the call management  
30 program permits consumers to automatically make long distance phone calls at discounted rates without memorizing numerous PIC codes and without continually shopping for the best long distance rates and provides the consumers, free of charge,

many of the same enhanced telephone calling options that they previously had to pay for as well as additional, more powerful calling options.

Additionally, the display of the sponsor companies' banners during use of the call management program allows the sponsor companies to more effectively market their goods and services to telephone and Internet users. Because the banners are triggered by specific consumer activities and popped-up at the exact moment of purchase receptivity, they are more likely to elicit favorable responses. Moreover, because the banners are displayed directly on the user computers 22 before the consumers connect to the Internet or complete a phone call, they are separated from the thousands of other banners and advertisements on the Internet.

Although the invention has been described with reference to the preferred embodiment illustrated in the attached drawing figures, it is noted that equivalents may be employed and substitutions made herein without departing from the scope of the invention as recited in the claims. For example, although in the preferred embodiment the banners and other advertising provided by the sponsor companies are downloaded to the user computers 22 along with the call management program, the banners and advertising may also accompany other types of downloaded software programs and files such as graphics programs, news-reporting services, etc. The important aspect of the banners and advertising is that they "ride-along" with some type of program, data, or other information that consumers will be encouraged to download from the host computer 12.

Having thus described the preferred embodiment of the invention, what is claimed as new and desired to be protected by Letters Patent includes the following:

## CLAIMS:

1. A computer-readable memory device having a computer program stored thereon for directing a computer to function as a telephone call management device, the computer program comprising:
    - 5 means for receiving a list of phone numbers entered by a consumer;
    - means for displaying on the computer at least some of the entered phone numbers;
    - means for receiving and storing a PIC code associated with a selected telephone service provider;
  - 10 means for permitting the consumer to select one of the displayed phone numbers for dialing;
  - means for front-loading the PIC code in front of the selected phone number and dialing the PIC code and selected phone number; and
  - 15 means for periodically receiving a different PIC code from a location remote from the computer and from someone other than the consumer for use in subsequent dialing.
- 
2. The computer-readable memory device as set forth in claim 1, the means for periodically receiving a different PIC code including-
    - 20 means for prompting the consumer to access an Internet website to re-register the computer program, and
    - means for downloading the different PIC code from the Internet website during the re-registration.
- 
- 25 3. The computer-readable memory device as set forth in claim 1, further including-
    - means for receiving a plurality of advertisements from sponsor companies,
    - means for displaying selected ones of the advertisements alongside the displayed phone numbers, and
  - 30 means for periodically receiving updated advertisements from a location remote from the computer for subsequent displaying.

4. The computer-readable memory device as set forth in claim 3, the means for periodically receiving updated advertisements including-

means for prompting the consumer to access an Internet website to re-register the computer program, and

5 means for downloading the updated advertisements from the Internet website during the re-registration.

5. A computer-readable memory device having a computer program stored thereon for directing operation of a computer, the computer program comprising:

10 means for receiving a plurality of advertisements from sponsor companies;

means for prompting a consumer to enter dates of events;

means for selecting the advertisements that relate to each of the events;

means for displaying on the computer reminders of the events dates before the actual event dates; and

15 means for displaying alongside the reminders of the events the advertisements that relate to the events.

6. The computer-readable memory device as set forth in claim 5, further including means for periodically receiving updated advertisements from a location 20 remote from the computer for subsequent displaying.

7. The computer-readable memory device as set forth in claim 6, the means for periodically receiving updated advertisements including-

means for prompting the consumer to access an Internet website to re-register 25 the computer program, and

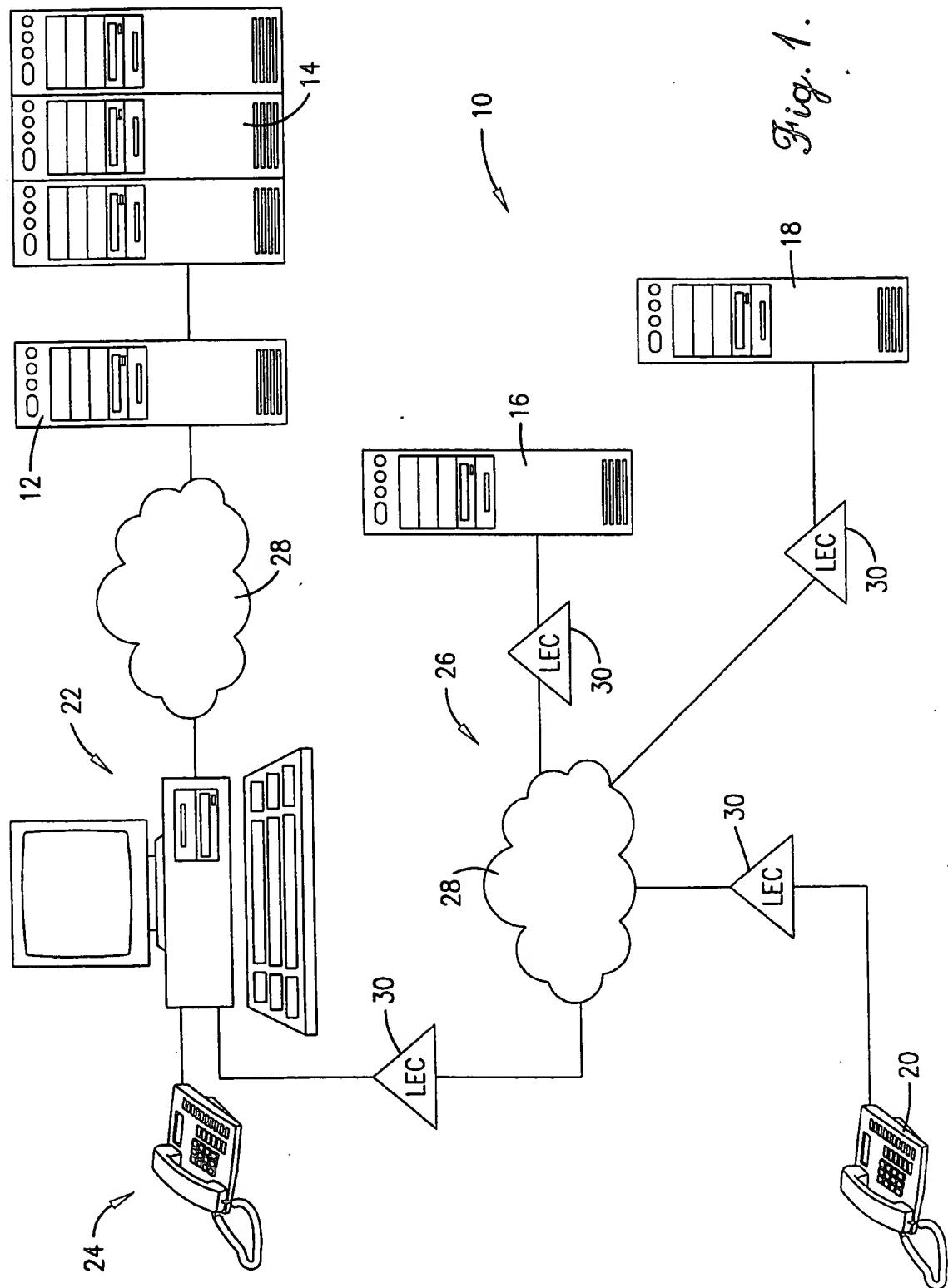
means for downloading the updated advertisements from the Internet website during the re-registration.

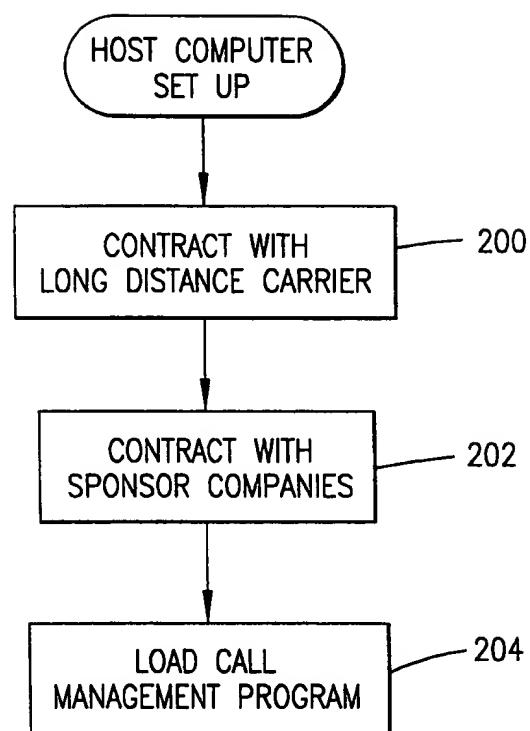
8. A computer-readable memory device having a computer program stored thereon for directing operation of a computer that has an Internet browser program stored thereon and that has access to an Internet search engine program, the computer program comprising:

- 5        means for receiving a plurality of advertisements from sponsor companies;
- means for selecting key words that a consumer may enter into the search engine and URL addresses that the consumer may enter into the browser;
- means for selecting the advertisements that relate to the key words that the consumer may enter into the search engine and the URL addresses that the consumer may enter into the browser;
- 10        means for monitoring the browser and the search engine to monitor the entry of the selected key words and URL addresses; and
- means for displaying on the computer, when the consumer enters any of the selected key words and URL addresses, the advertisements that relate to the entered key words and URL addresses before the computer has been connected to the Internet.

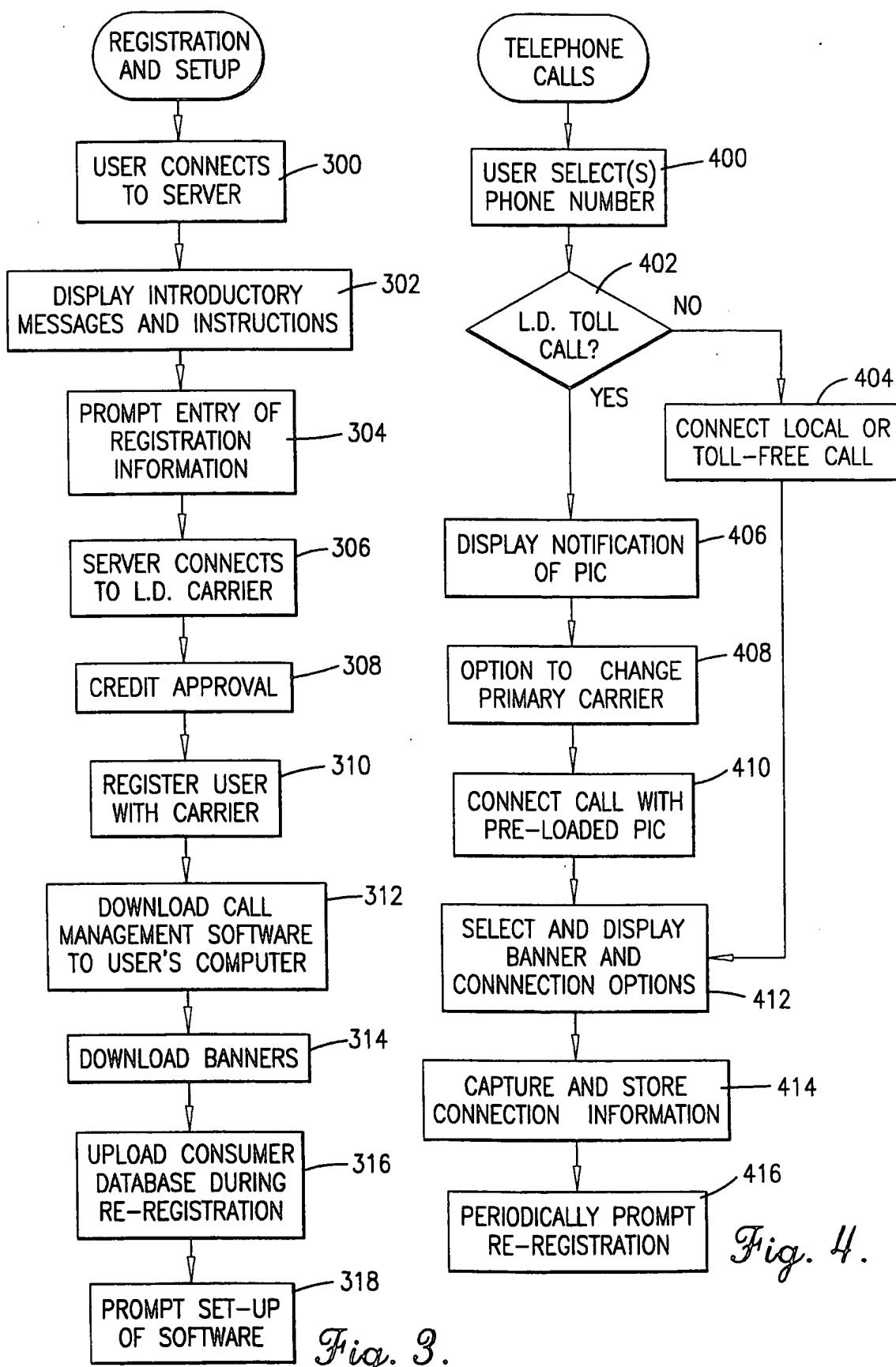
- 20        9. The computer-readable memory device as set forth in claim 8, further including means for periodically receiving updated advertisements from a location remote from the computer for subsequent displaying.

- 25        10. The computer-readable memory device as set forth in claim 9, the means for periodically receiving updated advertisements including-
  - means for prompting the consumer to access an Internet website to re-register the computer program, and
  - means for downloading the updated advertisements from the Internet website during the re-registration.





*Fig. 2.*



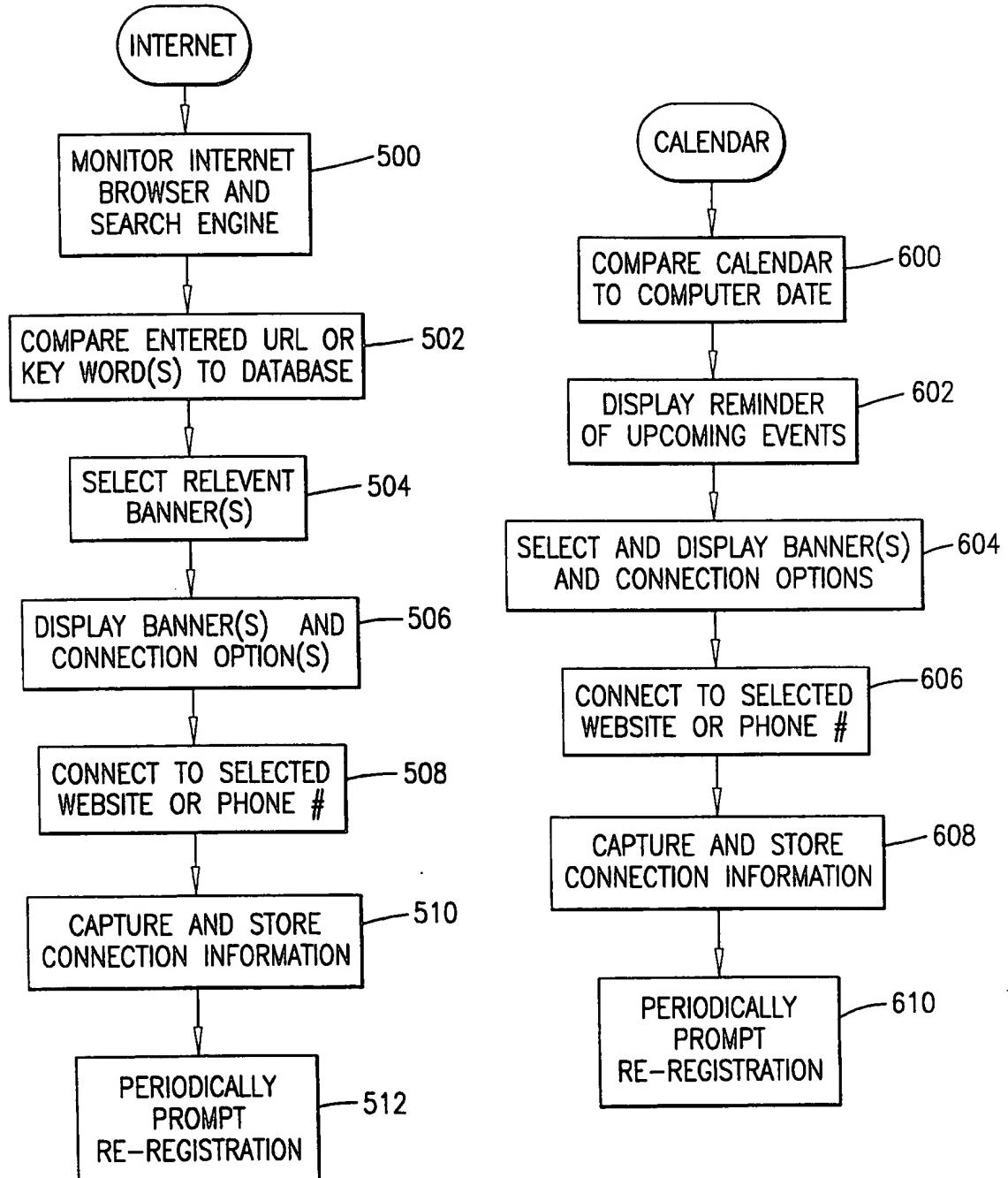


Fig. 5.

Fig. 6.